

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2013-168-WS - ORDER NO. 2013-802  
NOVEMBER 14, 2013

IN RE: Petition of the Office of Regulatory Staff to	)	ORDER REQUIRING
Request an Order Requiring Tega Cay Water	)	TEGA CAY WATER
Service, Inc. to Take Necessary Measures to	)	SERVICE TO CONTINUE
Provide Adequate and Proper Service	)	IMPLEMENTING
	)	CORRECTIVE ACTION
	)	PLAN

This matter comes before the Public Service Commission of South Carolina (“Commission”) on the Petition (“Petition”) of the Office of Regulatory Staff (“ORS”) to request an order requiring Tega Cay Water Service, Inc. (“TCWS” or the “Company”) to take necessary measures to provide adequate and proper service. TCWS is a National Association of Regulatory Utility Commissioners (“NARUC”) Class B water and wastewater utility according to water and sewer revenues reported on its most recent rate application for the test year ending December 31, 2011. TCWS is a public utility that provides water and wastewater service to certain residents of and the City of Tega Cay which is located in York County. The Company is a subsidiary of Utilities, Inc. (“UI”), which has its corporate offices in Northbrook, Illinois. According to its most recent rate application, TCWS provides water distribution services to 1,739 residential and commercial customers and wastewater collection/treatment services to 1,716 residential and commercial customers.

This matter was initiated on May 8, 2013, when ORS filed a Petition with the Commission for an order requiring TCWS to provide adequate and proper service to its customers. See S.C. Code Ann. § 58-5-10 et. seq. (Supp. 2012).

The Commission issued a Notice of Filing and Hearing in this matter on May 14, 2013, setting this matter for a full hearing before the Commission on August 6, 2013. No parties intervened in this matter.

On August 6, 2013, a hearing concerning the matters asserted in ORS's Petition was held in the Commission's hearing room located at Synergy Business Park, 101 Executive Center Drive – Saluda Building, Columbia, South Carolina. The Commission, with Chairman G. O'Neal Hamilton presiding, heard the matter of ORS's Petition. Scott Elliott, Esquire, and Charles L.A. Terreni, Esquire, represented TCWS. Jeffrey M. Nelson, Esquire, and Shannon Bowyer Hudson, Esquire, represented ORS. Randall Dong, Esquire, served as legal counsel to the Commission.

At the outset of the hearing, the Commission heard testimony from two public witnesses. Included in the testimonies from the public witnesses were complaints regarding recurring sewer overflows into homes and Lake Wylie and testimony that customers want the company to replace the systems' aging clay pipes and for a unified sewer system with the City of Tega Cay.

ORS presented its case in support of the Petition through the direct testimony and exhibits of Willie J. Morgan, Program Manager for the ORS Water and Wastewater Department. Witness Morgan explained that further review of the Company's collection system was necessary due to sanitary sewer overflows ("SSOs"), which occurred on

January 17, April 28 and 29, and May 6, 2013. During the ORS site inspections on May 9, 2013, and June 30, 2013, the flow at the two wastewater treatment facilities inspected appeared to be normal. However, as Witness Morgan explained, both wastewater systems have experienced SSOs of varying amounts during the previously cited periods as well as at other times in 2013. There has been no enforcement action by the South Carolina Department of Health and Environmental Control (“DHEC”) against the Company as a result of the recent SSOs. However, as a result of earlier SSO activity, the Company had entered into a Consent Order with DHEC (DHEC Consent Order 11-004-W) in February of 2011, requiring TCWS to pay a fine of \$60,000 and to submit a Corrective Action Plan (“CAP”) and progress reports every six months documenting TCWS’ progress toward completion of the CAP on the wastewater systems. In its review of the Company’s progress towards compliance with the Consent Order and CAP, ORS reviewed the most recent work completed by TCWS on its wastewater systems and the Department of Natural Resources (“DNR”) rainfall information for 2013. Witness Morgan stated that, based on the work completed by TCWS, SSOs should be reduced. ORS recommended that TCWS continue to comply with the requirements of the most recent DHEC Consent Order and the CAP submitted to DHEC, along with other measures that are necessary to prevent SSOs.

TCWS presented the direct and rebuttal testimony and exhibits of Richard J. Durham, Regional Vice President of Operations for UI, and its subsidiaries, including TCWS. Witness Durham explained the causes of the recent SSOs in Tega Cay and the Company’s response to their occurrence in the overall context of the Company’s efforts

to improve the system's operations over the past several years. Witness Durham stated that, due to the wastewater collection system's age, pipe material, number of lift stations, the location of the collection lines in close proximity to the lake shoreline, and the hilly terrain, the design of the system poses several operational and maintenance challenges. There is not only a high potential of overflows occurring, but also significant potential for an overflow to reach Lake Wylie.

Witness Durham summarized the work done pursuant to the CAP developed in 2011 to reduce the incidence of SSOs in the Tega Cay system. The work performed included improvements to the treatment process for the removal of phosphorus at wastewater treatment plants ("WWTP") #2 and #3 to meet new limits established in the permit. There was also an assessment of the lift stations, gravity mains and force mains that led to upgrades to the lift stations and significant improvements (including the removal of roots and grease) to the gravity mains and manholes that enhanced their ability to transmit waste through the collection system and reduced the incidence of raw sewage overflows occurring in the collection system. Elements of the CAP were prioritized so that those portions of the collection system that had a history of frequent SSOs were addressed first in order to reduce SSO activity as rapidly as possible. For instance, Lift Station #2 and Lift Station #3 were totally revamped. Each station was equipped with more energy efficient submersible pumps to provide more reliable performance and reduce the need for frequent repairs. Each control panel was also replaced and charcoal filters installed on the vent pipe to minimize odors coming from the wet wells. The newly installed pumps provide an increase in pumping capacity over

the original pumps, which allows the two pump stations to keep up with peak flow conditions generated by the customers in their vicinity. Witness Durham stated that these improvements resulted in a drastic reduction in the frequency, duration, and volume of wastewater associated with SSOs in the collection system.

Witness Durham stated that there were a total of nine SSOs from July 2011, through December 31, 2012. The total volume of the spills was less than 1,500 gallons (in six cases, less than 50 gallons), with no wastewater entering any surface water bodies including Lake Wylie. In comparison, 22 SSOs occurred during the first six months of 2011. However, in 2013, TCWS began to experience new problems. Three rain events resulted in high flows reaching the treatment plants within a short duration of time. There have been 25 SSOs reported in Tega Cay since January 1, 2013. Two of the SSOs that took place in 2013 resulted in wastewater discharges of over 100,000 gallons each into Lake Wylie; a third involved a discharge of approximately 50,000 gallons. These occurred on January 18, April 29, and May 6, and each of these dates was associated with unusually heavy rain events. Three SSOs involved discharges of 2,000 to 3,000 gallons. Nineteen of the SSOs involved the release of less than 500 gallons of wastewater, and thirteen of the SSOs involved 100 gallons or less.

With regard to the rain-related overflows, Witness Durham testified that each associated rain event was only one of several contributing factors to these overflows. Based on the Company's assessment, other contributing factors included improved flow within the collection system, upgraded lift station pumping efficiency, inflow, lake levels, supersaturated ground (near lake shores and failing city owned storm drainage systems),

infiltration, and at least one incident of vandalism. Prior to 2013, many of these factors were not significant contributing drivers in the number of incidences of SSOs. During the six year period prior to the collection system improvements made in 2011 and 2012, the majority of the overflows can be attributed to blockages within the gravity collection system. Witness Durham stated that the common causes of these blockages were debris and root intrusion.

Witness Durham summarized the work that had been performed to address the overflows that occurred in 2013. After the May 6th SSO occurred, UI brought in additional resources. On May 8, 2013, a “SWAT” team of UI workers from South Carolina, North Carolina, Georgia, Louisiana, and Florida came to Tega Cay to work on the system. The UI team canvassed the collection systems of WWTP #2 and #3 looking for areas of inflow & infiltration. Smoke and dye testing assisted in specifically locating where and what type of improvements were needed. In addition, Closed Circuit Television (“CCTV”) cameras were extensively used in 8 miles of sewer mains to aid in the rehabilitation of the collection system. After this assessment, on May 8th the Company commenced work to improve the system as follows:

- (a) Completed numerous excavations to improve service connections by creating 24 water tight seals;
- (b) Installed 10 locking manhole covers;
- (c) Installed approximately 300 inflow dishes in manholes;
- (d) Installed 125 manhole risers;

(e) Installed approximately 7,756 Linear Feet of Cured-in-Place Pipe (“CIPP”) liner;

(f) Divers inspected over 7,000 Linear Feet of underwater effluent pipe between the WWTPs and the discharge points in Lake Wylie;

(g) Installed four logging flow monitors in critical MHs that would provide the Company with information of flow coming into the WWTP.

Witness Durham testified that the Company’s response to recent SSOs has been successful. There have not been any major SSOs since May 6, 2013, in spite of some heavy rainfall events, including a tropical storm. Of the three-incidents that occurred, two were less than 10 gallons and related to cleaning, and the other involved less than 200 gallons. None of the spills involved a pump failure but rather were all caused by roots in the lines, which is a more systemic problem to the system and cannot be addressed as quickly.

Witness Durham stated that TCWS will continue to carry out the CAP and comply with all Commission and DHEC regulations. Witness Durham stated that TCWS is committed to providing its customers with quality service and intends to resolve the issues experienced during the past several months. TCWS or Witness Durham will keep the Commission apprised of its efforts by reports or hearings as it deems appropriate.

### **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

After thorough consideration of the entire record in the TCWS hearing, including the previously cited testimony and exhibits and the applicable law, the Commission hereby makes the following findings of fact and conclusions of law:

1. TCWS is a corporation organized and existing under the laws of the State of South Carolina and authorized to do business in South Carolina.

2. TCWS is a public utility as defined by S.C. Code Ann. § 58-5-10(3) (Supp. 2012) and provides water and sewer service to the public for compensation in certain areas of the City of Tega Cay, which is located in York County, South Carolina and is subject to the jurisdiction of this Commission.

3. TCWS is a National Association of Regulatory Utility Commissioners (“NARUC”) Class B water and wastewater utility according to water and sewer revenues reported on its most recent rate application for the test year ending December 31, 2011.

4. According to its most recent rate application, TCWS provides water distribution services to 1,739 residential and commercial customers and wastewater collection/treatment services to 1,716 residential and commercial customers.

5. The DHEC Consent Order 11-004-W required TCWS to pay a fine of \$60,000 and to submit a Corrective Action Plan (“CAP”) and progress reports every six months documenting the progress toward completion of the corrective actions on the wastewater systems.

6. TCWS has performed work pursuant to the CAP developed in 2011 to reduce the incidence of SSOs in the Tega Cay system. The work performed included



improvements to the treatment process for the removal of phosphorus at wastewater treatment plants #2 and #3 to meet new limits established in the permit. There was also an assessment of the lift stations, gravity mains and force mains that led to upgrades to the lift stations and significant improvements (including the removal of roots and grease) to the gravity mains and manholes that enhanced their ability to transmit waste through the collection system and reduced the incidence of raw sewage overflows occurring in the collection system. Elements of the CAP were prioritized so that those portions of the collection system that had a history of frequent SSOs were addressed first in order to reduce SSO activity as rapidly as possible. Lift Station #2 and Lift Station #3 were totally revamped. Each station was equipped with more energy efficient submersible pumps to provide more reliable performance and reduce the need for frequent repairs. Each control panel was also replaced and charcoal filters installed on the vent pipe to minimize odors coming from the wet wells. The newly installed pumps provide an increase in pumping capacity over the original pumps, which allows the two pump stations to keep up with peak flow conditions generated by the customers in their vicinity.

7. TCWS experienced a total of nine SSOs from July 2011, through December 31, 2012. The total volume of the spills was less than 1,500 gallons (in six cases, less than 50 gallons), with no wastewater entering any surface water bodies including Lake Wylie. In comparison, 22 SSOs occurred during the first six months of 2011. However, in 2013, TCWS began to experience new problems. Three rain events resulted in high flows reaching the treatment plants within a short duration of time. There have been 25 SSOs reported in Tega Cay since January 1, 2013. Two of the SSOs

that took place in 2013 resulted in wastewater discharges of over 100,000 gallons each into Lake Wylie, a third involved a discharge of approximately 50,000 gallons. These occurred on January 18, April 29, and May 6, and each of these dates was associated with unusually heavy rain events. Three SSOs involved discharges of 2,000 to 3,000 gallons. Nineteen of the SSOs involved the release of less than 500 gallons of wastewater, and thirteen of the SSOs involved 100 gallons or less.

8. During the ORS site inspections on May 9, 2013, and June 30, 2013, the flow at the two wastewater treatment facilities inspected appeared to be normal. However, both wastewater systems have experienced SSOs of varying amounts during other times in 2013.

9. TCWS performed work to address the overflows that occurred in 2013.

10. The Company's response to recent SSOs has been relatively successful. There were no major SSOs from May 6, 2013, through the date of the hearing in this matter, in spite of some heavy rainfall events, including a tropical storm. Of the three incidents that occurred, two were less than 10 gallons and related to cleaning, and the other involved less than 200 gallons. None of the spills involved a pump failure but rather were all caused by roots in the lines, which is a more systemic problem to the system and cannot be addressed as quickly.

11. Subsequent to the hearing in this matter, but prior to the issuance of the Commission Directive, the Company informed the Commission that three SSOs occurred over the Labor Day holiday weekend. The Company has advised the Commission that it is now developing a more targeted approach using historical data collected with GIS

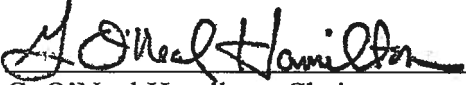
mapping and other technology to detect developing problems in the system. Also, the Company represents that it will ensure that its Voice Reach telephone notification system, in addition to other forms of communication, is used to alert customers to such events on an ongoing basis.

IT IS THEREFORE ORDERED THAT:

1. TCWS continue to comply with the requirements of DHEC Consent Order 11-004-W and the Corrective Action Plan submitted to DHEC to prevent SSOs, and that it file with the Commission copies of all progress reports prepared in connection with the Consent Order and the CAP.
2. TCWS continue with the provisions outlined in its written plans for repair, maintenance, and operations for reducing and preventing SSOs, including its ongoing efforts to develop a more targeted approach using historical data collected with GIS mapping and other technology to detect developing problems in the system.
3. TCWS continue to alert customers of any SSOs using its Voice Reach telephone notification system in addition to other forms of communication.

4. This Order shall remain in full force and effect until further order of the Commission.

BY ORDER OF THE COMMISSION:

  
G. O'Neal Hamilton, Chairman

ATTEST:

  
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Nikiya Hall, Vice Chairman

(SEAL)